

AMENDMENT TO THE CLAIMS

1.(Original) An electrical capacitance-type diaphragm pressure sensor comprising:

a pressure-sensing member having a pressure receiving part formed from non-metallic strip diaphragms provided in opposing relation to each other, with deposited electrodes being formed on the opposing surfaces of the diaphragms, and depositing a metal on the diaphragms; and

a nickel protective layer directly provided on said pressure-sensing member,

whereby a fluid pressure to be sensed is transferred to said pressure receiving part via said nickel protective layer and variations in an amount of a gap between the deposited electrodes formed on the opposing faces of the opposing diaphragms cause changes in capacitance.

2.(Original) The diaphragm pressure sensor as defined in Claim 1, wherein said pressure-sensing member is provided with a supporting member for installation.

3.(Original) The diaphragm pressure sensor as defined in Claim 1, wherein the metal deposited on said diaphragm is any metal having a high ionization tendency, and selected from tin, copper, silver and gold.

4.(Original) A method of fabricating an electrical capacitance-type diaphragm pressure sensor for sensing a fluid pressure comprising the steps of:

providing non-metallic strip diaphragms in opposing relation and forming deposited electrodes on the opposing faces of said diaphragms, to thereby form a pressure-receiving part of a pressure-sensing member;

depositing a metal on said diaphragms in said pressure-sensing member except for an end part where an electrode output terminal is formed;

installing a soluble flange along the approximate border between said end part and pressure receiving part of said pressure-sensing member;

applying a nickel plating as a protective layer to said pressure receiving part and the periphery of said flange of said pressure-sensing member;

removing said flange except for said nickel-plated protective layer in said pressure-sensing member; and

mounting a supporting member for installation in a region where said flange was removed except for said nickel-plated protective layer.

5.(Original) The method as defined in Claim 4 further comprising, before the step of applying said nickel plating, the step of covering the end part of the pressure-sensing member where said electrode output terminal is formed with a protective coat, so that a nickel plating solution does not affect the end part.

6.(Currently Amended) The method as defined in Claim 4 ~~or~~ 5 further comprising the step of immersing said nickel-plated protective layer in concentrated nitric acid, to thereby form over the nickel a passive state coat resistant to a strong acid solution.

7.(New) The method as defined in Claim 5 further comprising the step of immersing said nickel-plated protective layer in concentrated nitric acid, to thereby form over the nickel a passive state coat resistant to a strong acid solution.